Chas. D. Walcott
187

Natural History

OF

NEW YORK.

BY AUTHORITY.

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1851.

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AGRICULTURE

OF

NEW-YORK:

COMPRISING

AN ACCOUNT OF THE CLASSIFICATION, COMPOSITION AND DISTRIBUTION OF THE SOILS AND ROCKS,

AND THE NATURAL WATERS OF THE DIFFERENT GEOLOGICAL FORMATIONS;

TOGETHER WITH A CONDENSED VIEW OF THE

CLIMATE AND THE AGRICULTURAL PRODUCTIONS OF THE STATE.

BY EBENEZER EMMONS, M. D.

Smithsonian Institution
C
254809
National Museum

VOLUME III.

ALBANY:
PRINTED BY C. VAN BENTHUYSEN.
1851.

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PREFACE.

The five last years have witnessed a very great change in the system of fruit culture, as well as a great advance in the principles which lie at the foundation of Agriculture. This is seen in the call for agricultural periodicals and books. It is not now as formerly; a scientific agricultural work, ten years ago, would be excluded from the fireside of the farmer, because it employed names and words difficult to be understood, or even to pronounce; but now, we hear very little complaint on the score of hard names and technical phrases. Such works, too, were frequently regarded as theoretical, and as adapted only to a class of men styled book-farmers. It is now, however, conceded that books may teach the principles of Agriculture, and that the practical farmer may read and study them to great advantage. It will be seen that this volume is devoted partly to the description and illustration of the fruits of the State, and partly to the principles of practical agriculture. In the part devoted to fruits I have attempted to construct a better classification than we possessed. I do not know how it will be regarded by the learned in this branch of culture. The classification of varieties is always difficult, and when they are numerous, as in the apple and pear, it is increased. I may have failed in the application of the facts upon which my classification is based, for want of a full assortment of varieties; still, I believe the attempt to improve the classification of fruits is in the right direction.

It is due to myself to state, that many of the plates were engraved before fruit culture had received its impulse in New-York; and indeed a part of the work was printed before the best edition of Downing's work was published. Many difficulties and doubts have existed in the minds of some of our Pomologists, as it regarded the true name which had been given to many varieties. That I have fallen into error, in a few instances, is proba-

bly true. Most of the figures, however, will be found correct in outline and form. I am, however, dissatisfied with many, especially those which were printed at an early day; circumstances beyond my control have obliged me to give to the public some plates which are unworthy of a place in the volume. The fact is, both paper and printing are of that character that it was impossible to color the plates, handsomely: I inspected and corrected the proofs furnished me, and those were well executed; but it appears that the drawing upon the stone soon wore out, and hence bad impressions were often made, and which could not be converted afterwards, by colors, into handsome figures. I have also admitted varieties of apples which rank only as second rate: they are however good market apples. But there are other considerations than those of rank and value, which influenced me in publishing so many figures and plates. There is a philosophical interest in those products of organized matter, which multiply and run into varieties. What are the efficient and final causes by which, and for which these productions seem to increase in kinds so astonishingly? What cause is operative in the production of varieties? Is it original endowment, independent of climate; or is climate a cause which operates upon a susceptible constitution? I had in view, at one time, the exhibition of many varieties, with the view of contributing something for the illustration of these questions. I found, however, the questions beset with too many difficulties to be overcome, even in part, while engaged with the analyses of soils and vegetable products.

In conclusion, I feel bound to express a regret that this volume could not have been issued at an earlier day. The subject of which it mainly treats has gone far ahead in the last five years; and what in this volume might have been regarded as new, and which might, too, have aided the progress of pomology, will appear as less valuable, and of less importance. I may, however, commend to the attention of farmers the general principles of Agriculture which are expressed in the last part of the volume, together with the investigation of the milk of the cow. I can not but hope these facts will prove generally acceptable.

EBENEZER EMMONS.

Albany, December 5, 1851.

63.46.5

LIST OF FRUITS AND PLATES.

The following List of Fruits and Plates will assist in making references, as well as a convenient Index to the varieties of Fruits which are figured in this volume.

I. APPLES.

Autumn Pearmain, plate 27, fig. 1.

Autumn Strawberry, pl. 25, fig. 1.

Baldwin, pl. 17, fig. 4.

Bastard Seeknofurther, pl. 20: this last is a second rate apple, of a medium size; it is known under this name in Onondaga county, and is supposed to be a seedling.

Belmont, pl. 76.

Black Gilliflower, pl. 24.

Black Detroit, pl. 56.

Blue Pearmain, pl. 54, fig. 1.

Cheeseborough, pl. 20.

Cooper's Redling, pl. 77.

Cornish Gilliflower, pl. 56.

Curtis Sweeting: this is a very good seedling which originated in Onondaga county; it is a deep scarlet, and mostly destitute of stripes, pl. 20.

Dougc, pl. 28.

Early Harvest, pl. 58; do pl. 18, fig. B.

Early Winter, pl. 19: this is a first rate apple, in its season, and resembles, in flavor, the Lowell; its curious form and small stem are quite charactcristic.

Early Strawberry, pl. 58.

Ellis's Seedling: an excellent scedling, which originated in the orchard of Mr. Ellis, of Onondaga county; it ripens in autumn; yellow, large and fair, pl. 31.

Esopus Spitzenburgh, pl. 23.

Fallawater, pl. 46, fig. 1.

Fall Harvey, pl. 74.

Fall Pippin, pl. 18, fig. A.

Fall Strawberry, pl. 75.

Fameusc, pl. 48, fig. 2.

French Pippin, pl. 45, fig. 1.

Galway Red, pl. 35, fig. 1: the fruit is beautiful in form and color, and is supposed to be a seedling, but is only second rate.

Gloria Mundi, pl. 35: it is a small variety, but rather of a finer texture than the most common one sold in this market.

Gloria Mundi, pl. 34, bis, represents the common form and size, as sold in the Albany market; do, pl. 35.

Gravenstein, pl. 28, fig. 1.

Hall's Pippin, pl. 79.

Hawley, pl. 24.

Hawthornden, pl. 36.

Holland Pippin, pl. 79.

Hollow Core Pippin, pl. 78.

Hubbardston Nonsuch, pl. 51.

Hulburt's Scedling, pl. 49.

Jersey Crab, pl. 39.

Jonathan, pl. 25.

Kroom, pl. 37, fig. 1 and 1 A: sweet, and is well known among the Dutch of Albany and Rensselaer counties.

Lady Apple, pl. 47.

Lafayette Red, pl. 20: deep red; angular; above the medium size; Onondaga county.

Lemon Pippin, pl. 81.

Lowell Apple, pl. 40.

Maiden's Blush, pl. 30.

Mark's New Strawberry, pl. 52, fig. 1.

Marshall, pl. 21: color fine scarlet; above the medium size; angular; can be rated only as No. 2, for eating, but fine for cooking; known in Christian Hollow, in Onondaga county, where many seedlings appear to originate.

Mountain Greening: it is less valuable than the Rhode-Island Greening; originated in Vermont, but was obtained from Onondaga county, pl. 21.

Melon, pl. 76.

Newtown Pippin, pl. 33.

Palmer's Graft: a scedling of Onondaga county, pl. 19.

Peck's Pleasant, pl. 74.

Pie Apple: used and celebrated for cooking in Onondaga county, pl. 19.

Pennock, pl. 45.

Pomme Gris, pl. 77.

Porter, pl. 27.

Prince's Russet, pl. 20.

Red Astraean, pl 53.
Red Raunee, pl. 57.
Red Canada, pl. 42.
Rhode Island Greening, pl. 22.
Richfield Nonsueh, pl. 42.
Ridged Pippin, pl. 55.
Royal Carmine: of Onondaga and Cortland counties, pl. 21.
Royal Sweeting: this is also an Onondaga apple, but only second rate for eating, pl. 18.
Roxbury Russet, pl. 18
Salisbury's Pippin, pl. 21.
Salisbury Sweeting, pl. 19.
Slingerland Fall Pippin: a seedling from the Newtown Pippin, and originated with Mr. Slingerland of Albany county, pl. 32.
Seolloped Gilliflower, (German,) pl. 44.
Spitzenburgh, pl. 17.
Sheep's Nose, pl. 52.
Spanish Pippin, pl. 51.
Summer Wine, pl. 50.
Spotted Pippin, pl. 33.
Strawberry Apple? pl. 52, fig. 1: but its name remains undetermined; furnished by Mr Marks, of Greene, one of the most enlightened Pomologists of this State.
Swaar, pl. 22, fig. 2.
Teller's Seedling Russet: originated in the orehard of Mr. Teller, of Greenbush, pl. 37, fig. 2.
Wagener, pl. 41.
Warren Pippin, pl. 54.
White Vandervere, pl. 24.
Winter King, pl. 38.
William's Seedling, pl. 19: this is an exeellent sweet seedling of Onondaga county.
Vietorious Reinette, pl. 49.
Vandervere, pl. 55.
Virginia Sweeting, pl. 74, fig. 1.
Yellow Bellefleur, pl. 46.
Yellow Newtown Pippin, pl. 23.

II. PEARS.

Andrews, pl. 8.
Autumn Bergamotte, pl. 10 *d*, bis.
Bartlett, pl. 12.
Beurré de Aumalis, pl. 13: figured before ripened.
Beurré Diel, pl. 5, bis.
Beurré de Aremburgh, pl. 10.
Bezi de Naples, pl. 16.
Belle et Bon, pl. 78.
Bleeker Meadow, pl. 11.
Bloodgood, pl. 13 *d*.
Buffum, pl. 14 *d*.
Capiaumont, pl. 9 *d*.
Chaumontelle, pl. 16.
Catillac, pl. 5, bis.
Dix, pl. 15.
Duchess of Angouleme, pl. 10 *d*.
Easter Beurré, pl. 6, bis.
Frederick of Wurtemburgh, pl 6, bis.
Fulton, pl. 14 *d*.
Flemish Beauty, pl. 12 *d*.
Freneh Seekel, pl. 5.
Gray Doyenn[é], pl. 13 *d*.
Gil O Gil, pl. 75.
Glout Moreeau, pl. 9.
Heatheote, pl. 7.
Lewis, pl. 6 *d*.
Louis bon de Jersey, pl. 7.
March's Seedling? said to be a seedling winter, and a very exeellent keeper; keeps till spring, pl. 5.
Marie Louise, pl. 9 *d*, bis.
Passe Colmar, pl. 8.
Roy de Wurtemburgh, pl. 9 *d*.
Salisbury's Seedling, pl. 11.
Seekel, pl. 5.
Seekel, pl. 9 *d*, bis.
Striped Germain, pl. 14.
Swan's Pear, (or Swan's Orange,) pl. 6.
Swan's Orange, pl. 10 *d*, bis.
Trout, pl. 11 *d*.
Stevens's Genesee, pl. 6 *d*.
Virgalieu, pl. 5.
Winter Bell, pl. 6.
Winter Nellis, pl. 9 *d*.
Viear of Winkfield, pl. 12.
Washington, pl. 12 *d*.
White Doyenné, pl. 14.

III. PEACHES.

Albany Seedling, pl. 17.
Belle Gura, pl. 71.
Early Barnard, pl. 64.
Golden Nectarine, pl. 72.
Golden Rareripe, pl. 68.
Noblesse, pl. 64.
Large Early Violet, pl. 73.
Prinee's Rareripe, pl. 66.
Royal Kensington, pl. 70.
Sweet Water, pl. 67.
Whitbeek's Yellow Seedling, pl. 65

IV. PLUMS.

Albany Beauty, pl. 1 *a*.
Buel's Favorite, pl. 1.
Bleeker's Plum, pl. 3.

Coe's Golden Drop, pl. 5 *a*.
Denniston's Red, pl. 3.
Denniston's Seedling, pl. 2.
Denniston's Superb, pl. 2.
Egg Plum, pl. 3 *a*.
Eleanor, pl. 4 *a*.
Green Gage, pl. 4.
Lawrence Favorite, pl. 4.
March's Seedling, pl. 2.
Magnum Bonum, pl. 1; do pl. 3.
Mirabelle, pl 1.
Mulberry Plum, pl. 2 *a*.
Pardrigton, pl. 4.
Purple Seedling, pl. 2 *a*.
Prune Plum, pl. 4 *a*.
Quackenbush, pl. 3 *a*,
Schenectady Catharine, pl. 1 *a*.
Yellow Seedling Plum, pl. 1.

V. CHERRIES.

Wendell's Mottled Bigarreau: no number.
White Bigarreau, pl 63.
Black Tartarian, pl. 63.

VI. CURRANTS.

White Dutch, pl. 76.
Red Dutch, pl. 76.
Champaigne, pl. 76.
Black Naples, pl. 76.

VII. RASPBERRIES.

Yellow Antwerp, pl. 61.
New Red Antwerp, pl. 62.

VIII. GOOSEBERRIES.

Champion, pl. 59.
Edward's Jolly Tar, pl. 59.
Woodward's White Smith, pl. 59.
Wainman's Green Ocean, pl. 59.
White Eagle, pl. 76.
Sulphur Yellow, pl. 60.
Champaigne, pl. 60.
Pitmaston's Green, pl. 60.
Green Walnut, pl. 60.

PEAR STEMS,

SHOWING THE COLOR OF THE BARK.

Plate 16 *c*. This character is less constant than the color and form of the fruit; the shade of the color depending much upon the light to which it is exposed.

1. Easter Bergamot, (green.)
2. Louise Bonne of Jersey, (brown.)
3. Swan's Orange, (yellowish green.)
4. Madeleine, Heathcote, (reddish brown.)
5. Maria Louise, Steven's Genesee, (olive gray.)
6. Gray Doyenné, Gansel's Bergamot, (grayish brown.)

Note.—Among the varieties which have been figured, there are a few examples, about which different pomologists differ. The Westfield Seeknofurther, the Richfield Nonsuch and the Hubbardston Nonsuch, were received from well informed cultivators of fruit, yet they differ in form and size. In raising from seed, very similar varieties seem to be produced. This is remarkably seen in the Spitzenburgh; thus, fig. 2, pl. 36 represents a variety of Spitzenburgh often seen in market, that is, it possesses its flavor. Fig. 3, of the same plate, the name was lost by the engraver, and I have some doubts with respect to its true name, and have, therefore allowed it to remain blank.

Buel's Favorite.

Mirabelle.

Magnum Bonum

Yellow Seedling.

E. SIMONS Jr DEL. G. & W. ENDICOTT LITH. N. YORK. ON STONE BY P. SWINTON

On Stone by F. J. Swinton

1. ALBANY BEAUTY.
2. SCHENECTADY CATHARINE.

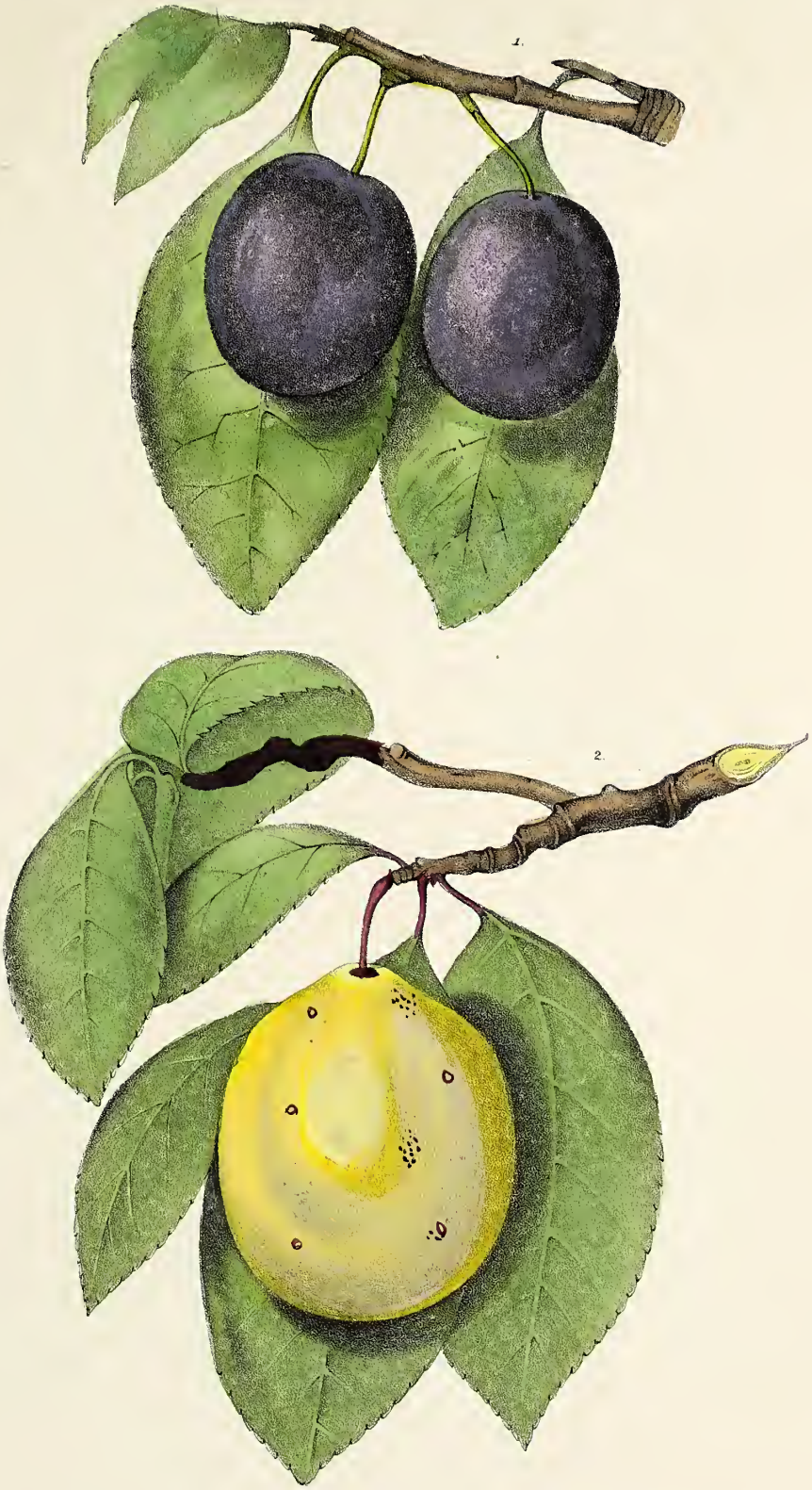
Lith of R. H. Pease, Albany

Dennston's Superb.

Dennistons Seedling.

March's Seedling.

E. EMMONS Jr. DEL. G. & W. ENDICOTT LITH. N YORK. ON STONE BY F. SWINTON.



On Stone by F. J. Swinton

1.

Lith. of R. H. Pease, Albany

2. MULBERRY PLUM.

Magnum Bonum.

Bleeker Plum.

Denniston's red.

S.E. EMMONS Jr DEL. G. & W. ENDICOTT LITH. N. YORK. ON STONE BY F. SWINTON

1

2

T. Emmons jr. delt

Lith. of R. H. Pease Albany

1. QUACKENBUSH PLUM
2. EGG PLUM.

Lawrence's Favorite.

Pardington.

Green Gage.

E. EMMONS Jr DEL. G. & W. ENDICOTT LITH. N. YORK. ON STONE BY F. SWINTON.

Pl. 4. a.

On Stone by Swinton

R. H. Pease Lith. Albany

1. ELEANOR 2. PRUNE PLUM.

Marchs Seedling.

Virgalieu.

A.

Seckle.

French Seckle.

ON. STONE BY G. T. SANFORD

G. & W. ENDICOTT LITH. N. YORK.

E Emmons Jr del.

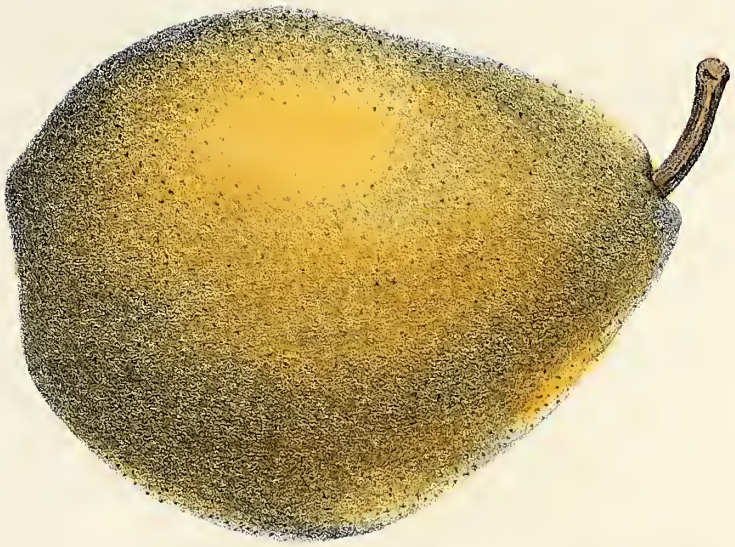
R.H Pease Lith Albany

1. BIJORRIE DIEL. 2. CATILLAC.

COE'S GOLDEN DROP.

Aqu[illegible]ted & Printed by J.T & R.H.P.

[illegible]sule, Del



Swan Pear

Winter Bell Pear.

ON STONE BY G. T SANFORD.

G. & W. ENDICOTT LITH. N YORK

Pl. 6.

E. Emmons Jr del

R H Pease Lith Albany

1. FREDERIC DE WURTEMBURG. 2. EASTER BEURRÉ.

Palmer del.

R.H. Pease Lith. Albany.

1. LEWIS. 2. STEVENS GENESEE.

1

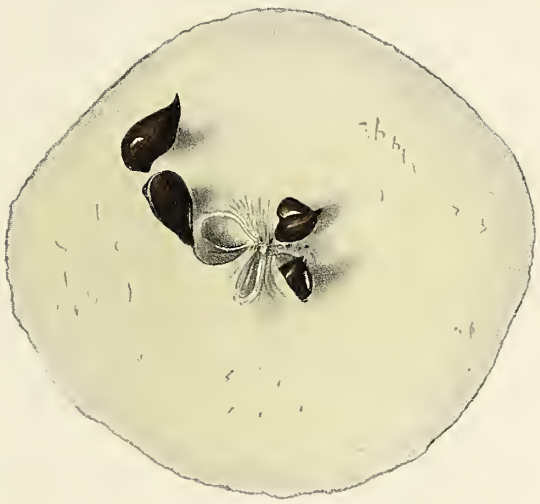
2

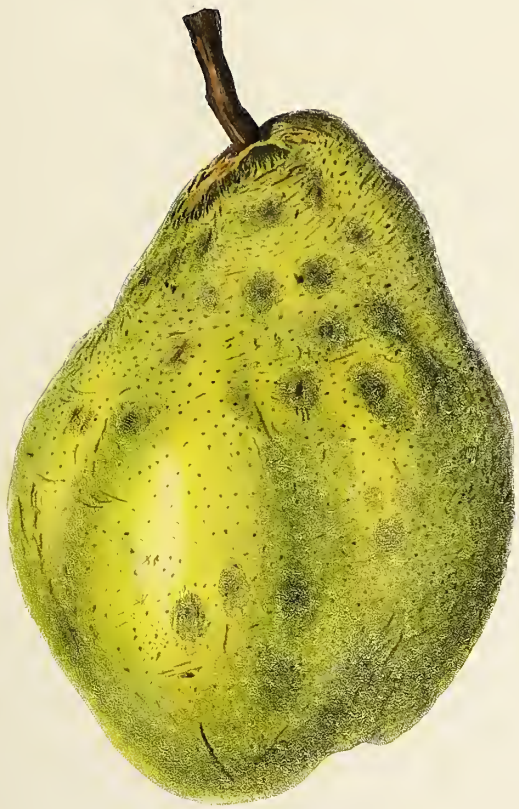
1, LOUISE BON DE JERSEY. 2, HEATHCOT.

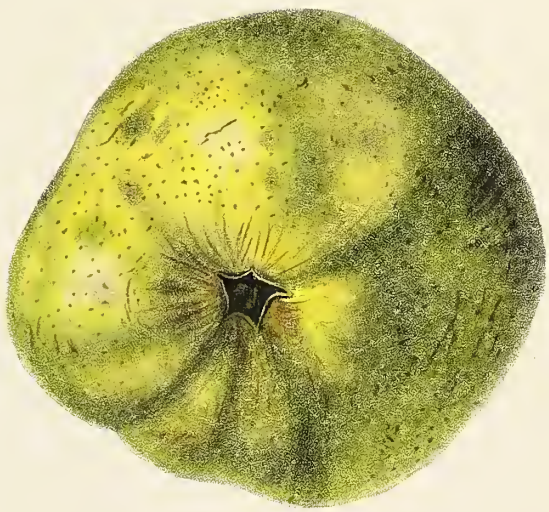
Drawn by E. Emmons, Jr.

Engraved & Printed by Gavit & Duthie.

1, PASSE COLMAR. 2, ANDREWS PEAR.







2

1. CATHAMONT. 2. WINTER NELIS.

1 2 SWANS ORNG.

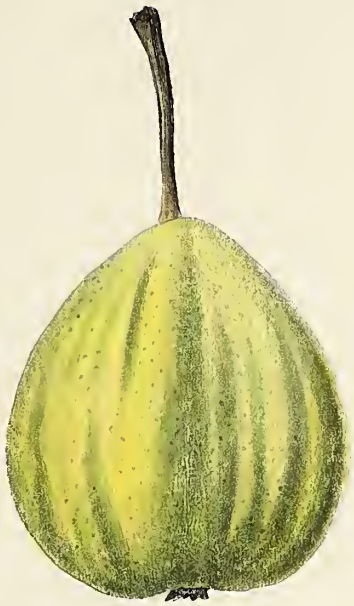
R. Emmons, Jr. Del

Engd & Printed by J. H. & I.

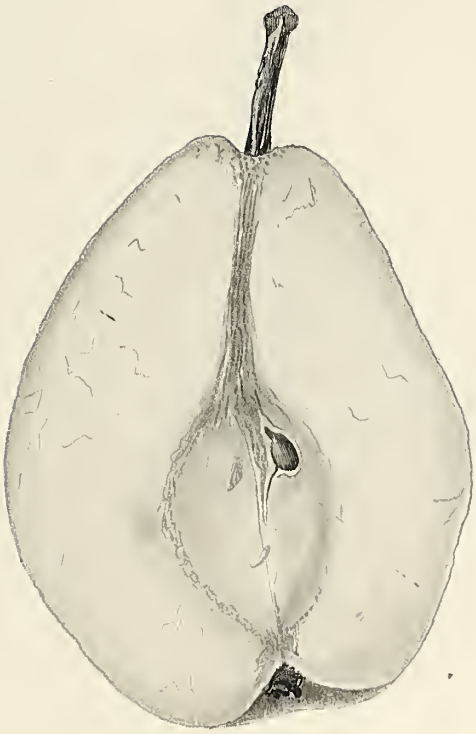
1 TROUT PEAR. 2 DUCHESS D'ANGOULEME.

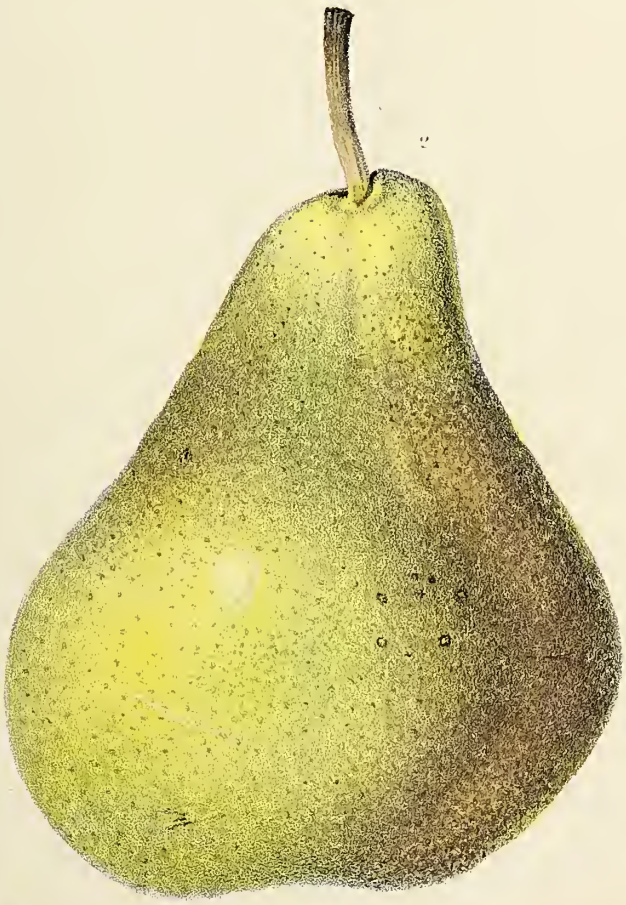
BEURRE D'AMALIS.

1. Beurré Gris d'Hiver Nouveau.
2. Beurré Diel.



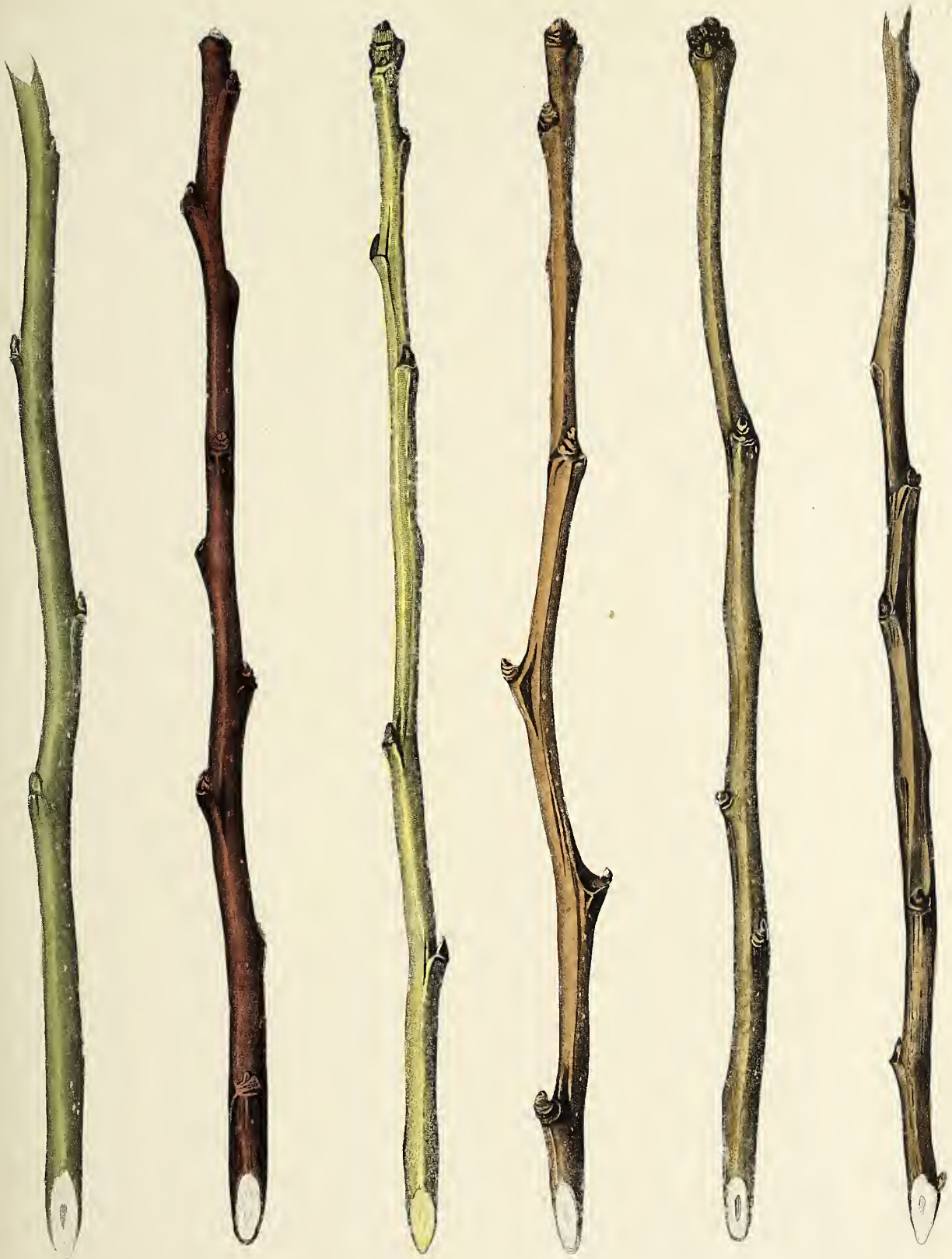
1 STRIPED GERMAN. 2 WHITE DOYENNE.





E.Emmons. Del. R.H Pease. Lith Albany.

1. BEZI DE NAPLES. 2. CHAUMONTELLE.



ALBANY SEEDLING PEACH.

A

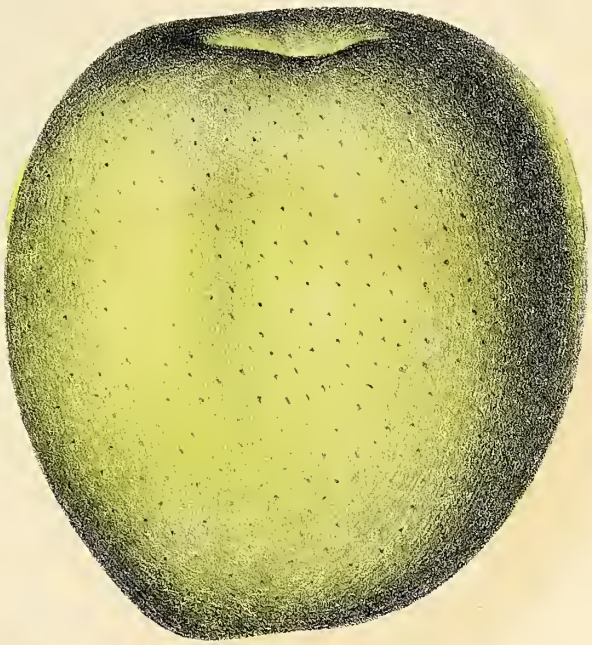
Roxbury Russet.

B

Royal Sweeting.

L. EMMONS Jr DEL. G. & W. ENDICOTT LITH. N. YORK. ON STONE BY F. SWINTON.

Palmer's Gravt.



Pie Apple

Salisbury Seedling.

Williams Seedling.

Early Winter.

E. EMMONS Jr DEL. G. & W. ENDICOTT LITH. N. YORK. ON STONE BY F. SWINTON.

Cherborough.

Lafayette Red.

Bastard Seek no further

Curtiss' Sweeting.

Prince's Russet.

E. EMMONS Jr. DEL.

G & W. ENDICOTT LITH N. YORK.

Royal Carmine.

Marshal.

E EMMONS JR DEL

Mountain Greening.

ON STONE BY F. SWINTON

Salisbury Pippin.

ON STONE BY F. SWINTON.

EMMONS DEL.

G & W ENDICOTT'S LITH. NEW YORK.

1 Spitzenberg. 2 Swaar Apple. 3 Greening. 4 Baldwin.

G & W ENDICOTT'S LITH. NEW YORK.

1 Northern Spy 2 Yellow Newtown Pippin 3 Esopus Spitzenberg.

J. Palmer del.

R. H. Pease Lith. Albany.

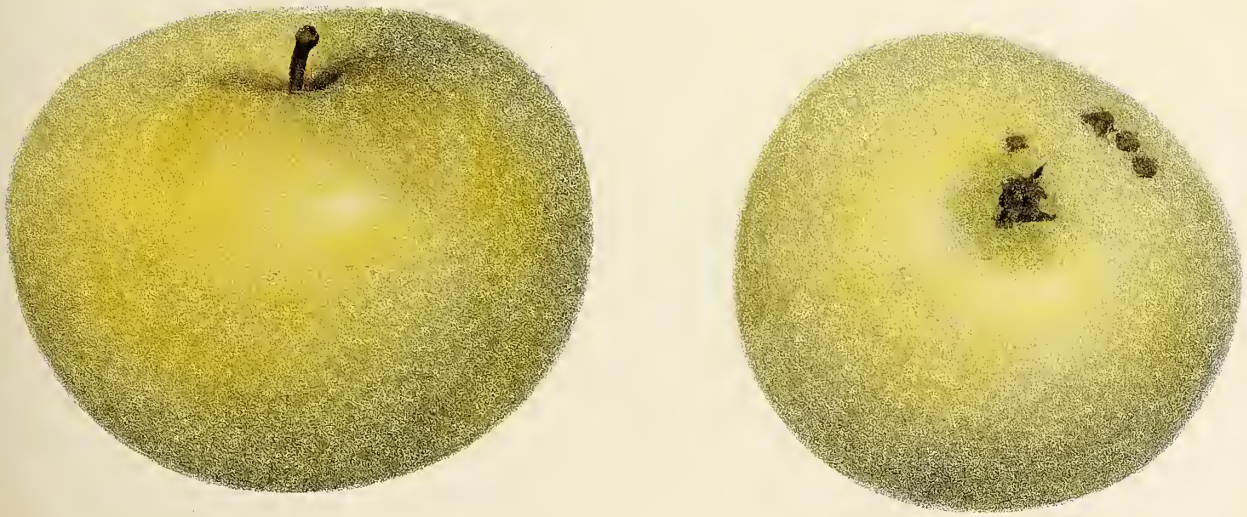
1. WHITE VANDEVERE. 2. HAWLEY.

1.

2.

Palmer del. R.H. Pease Lith. Albany

1. AUTUMN STRAWBERRY. 2. JONATHAN.



E. Emmons, jr. Del.

Lith. of R. H. Pease, Albany

EARLY HARVEST.

1.

2.

W. Swinton del. R. H. Pease Lith. Albany

1. SUMMER PEARMAIN. 2. PORTER.

1

2

Swinton del. R. H. Pease Lith. Albany

1. GRAVENSTEIN. 2. DOUCE

SUMMER QUEEN

THE MAIDEN'S BLUSH.

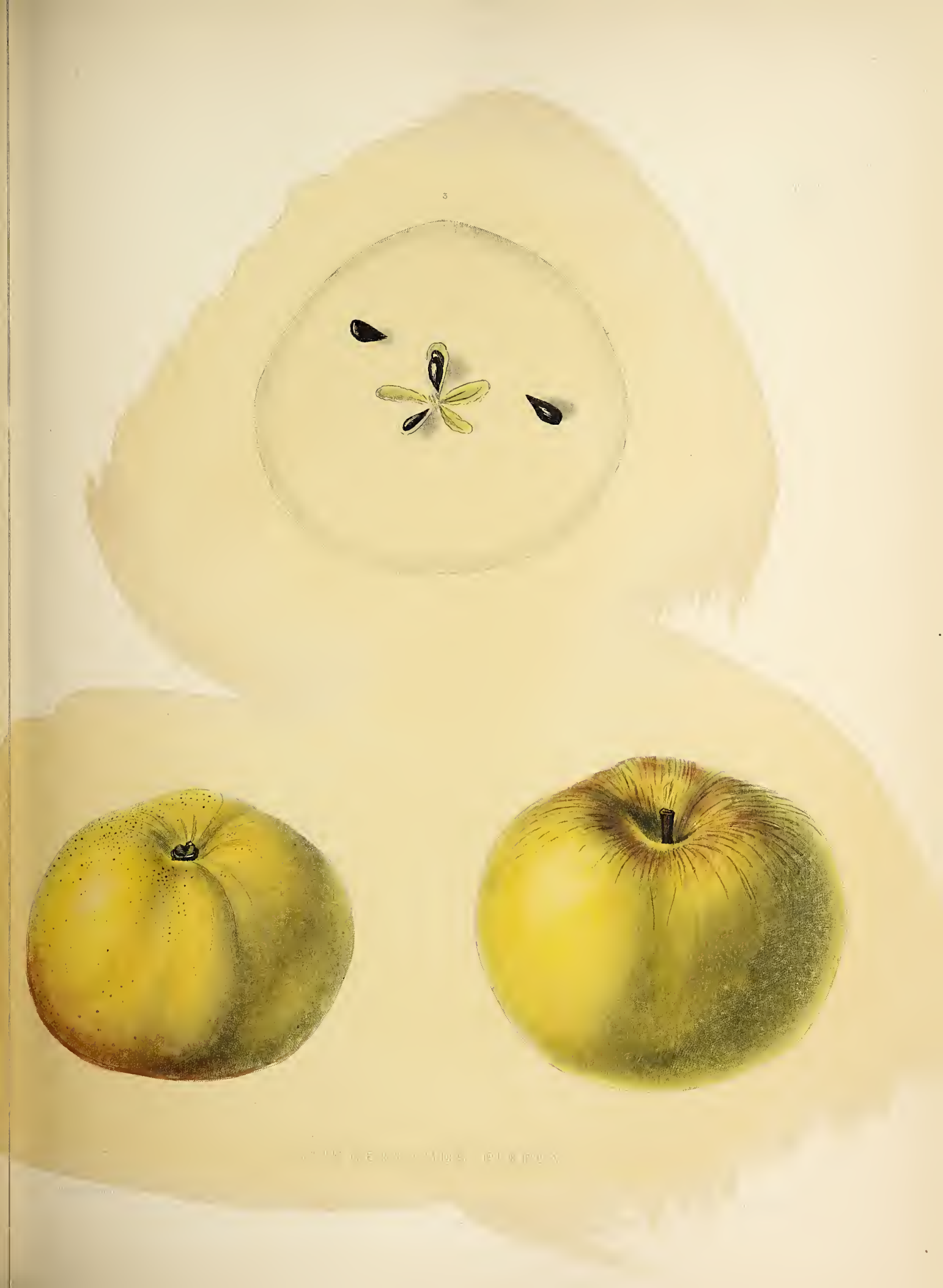
Drawn by S. Emmons, del.

Engraved & printed [illegible]

ELLIS'S SEEDLING.

Drawn by W.Emmons, Jr.

Engraved & Printed by Gavit & Duthie.



1. NEWTOWN PIPPIN. 2. SPOTTED PIPPIN.

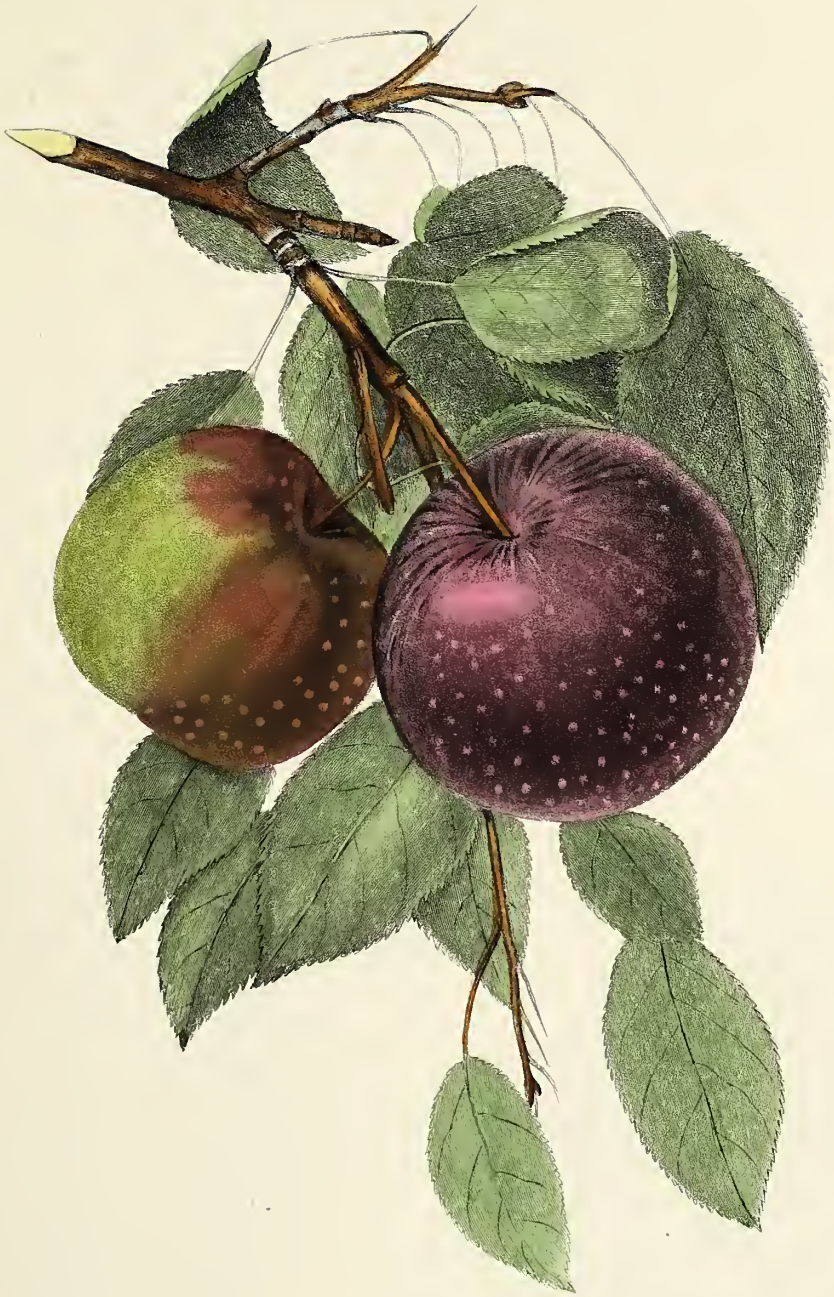
1 BROOM, 2 SELLERS RUSSET.

Drawn by Sarsbury

Eng'd Printed by

THE WINTER KING.

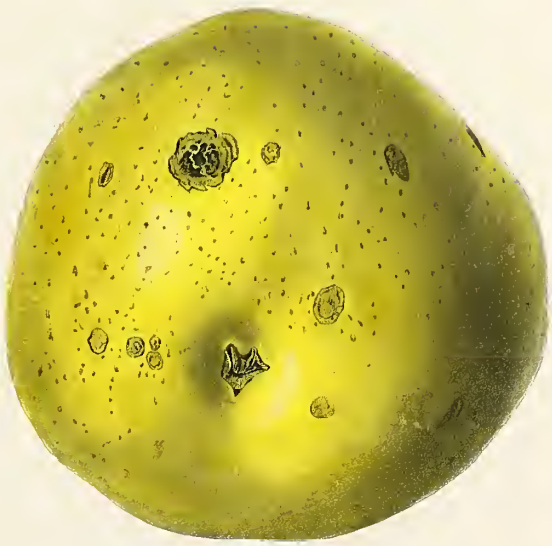
Drawn by R Emmons, Jr



JERSEY CRAB.

Drawn by E Emmons, Jr.

Engraved & Printed by [illegible]



LOWELL APPLE.

Drawn by E.Emmons, Jr.

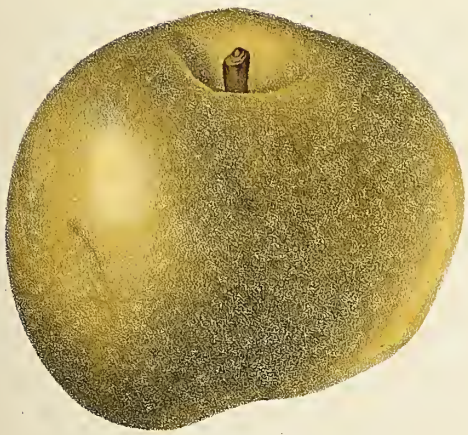
Engraved & Printed by Gavit & Dubois

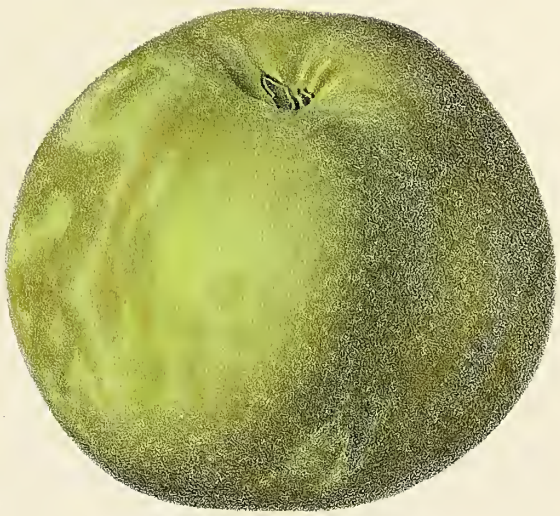
THE WAGONER.

Drawn by E Emmons.

One Stone by F. J. Swinton. Lith of R. H. Pease, Albany.

RICHFIELD NONE SUCH.





On Stone by F. J. Swinton

Lith. of R.H. Pease, Albany.

POMFRET RUSSETT.

Section.

E. Emmons, Del.

Lith. of R. H. Pease, Albany.

GERMAN SCOLP'D GILLIFLOWER.

1

2

Swinton del. R.H. Pease's Lith. Albany

1. FRENCH PIPPIN. 2. PENNOCK.

2

Swinton del

R. H. Pease's Lith. Albany

1. FALL WATER. 2. YELLOW BELLEFLEUR.

Pl. 47.

1

2

Swinton del.

LADY APPLES.

R. H. Pease Lith. Albany

1

2

Swinton del. R. H. Pease Lith. Albany.

1. RACES RED. 2. FAMEUSE.

1

2

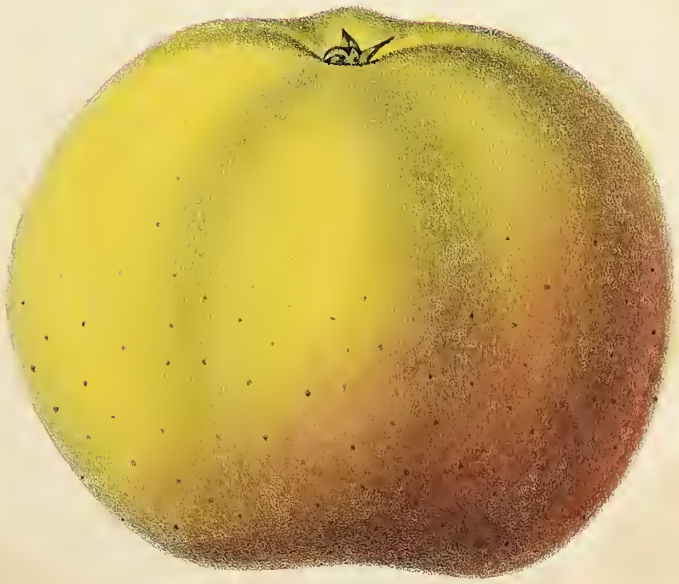
J. Winton del

R. H Pease lith Albany

1. AUBURNIUS SHEDDING. 2. VICTORIOUS REINETTE.

1

2.



Swinton del. R. H. Pease Lith. Albany.

1. SUMMER WINE. 2. NORTHERN GOLDEN SWEET.

1

2

Swinton del

R. H. Pease, Lith. Albany

1. SPANISH PIPPIN. 2. HUBBARDSTON NONSUCH.

1

2

Swinton del

R. H. Pease Lith. Albany

1.

2. SEEKEPNOSE.

RED ASTRACHAN.

Drawn by E. Emmons, Jr.

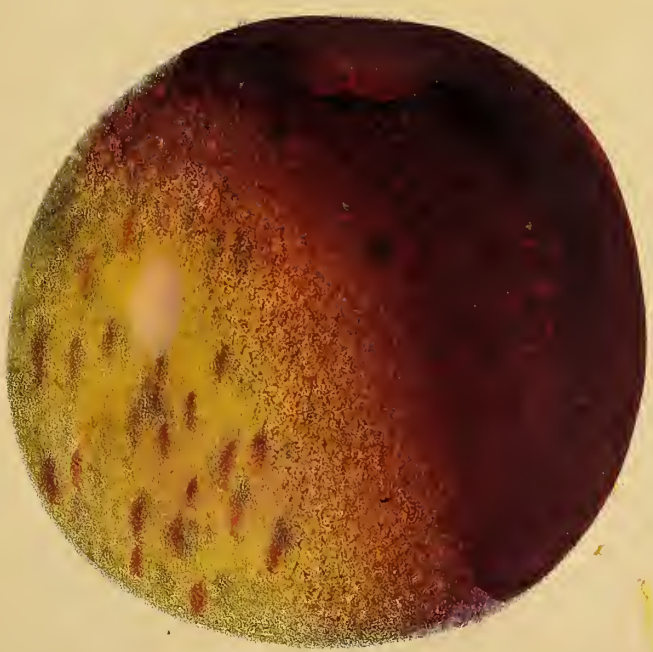
Engraved & Printed by H. H. Pease

1.

2.

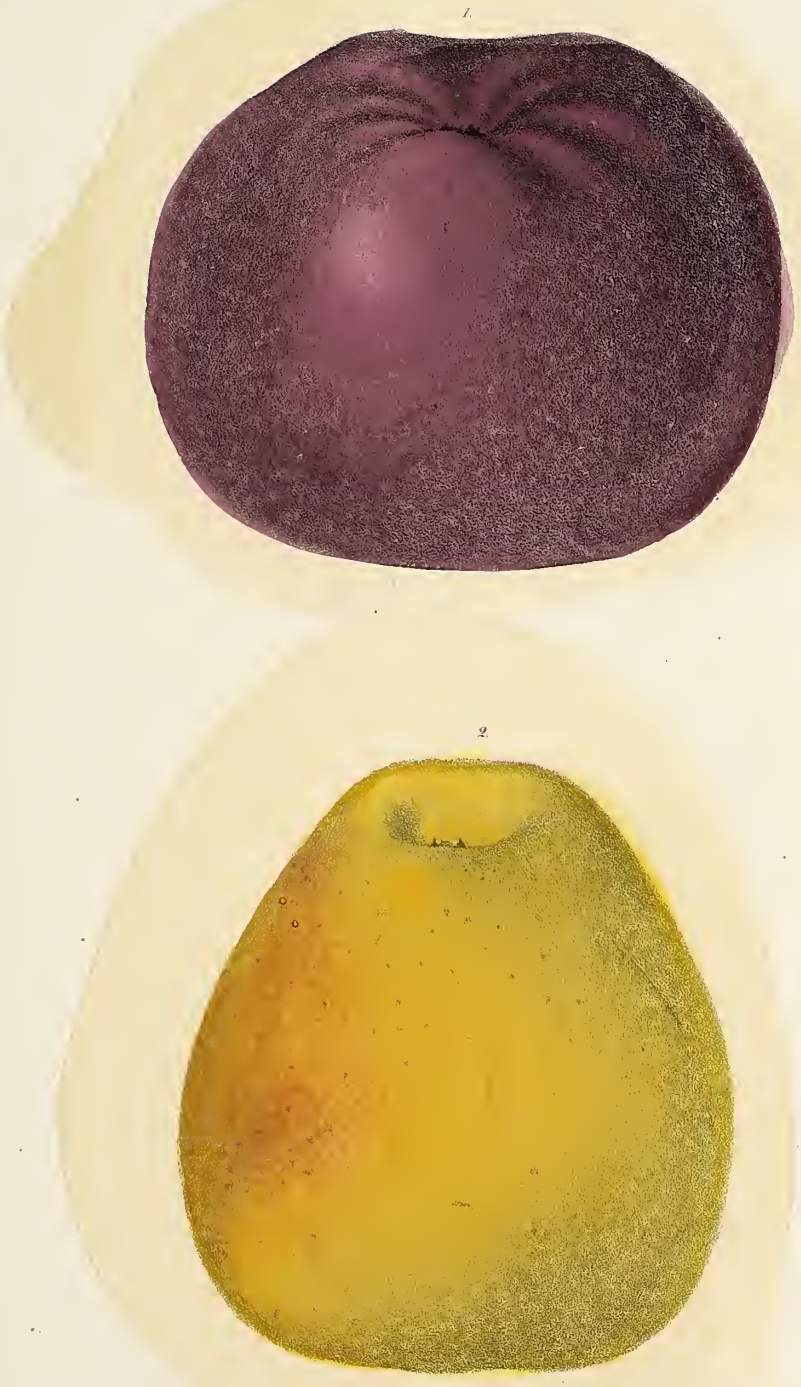
Swinton del. R.H. Pease Lith. Albany

1. BLUE PEARMAIN. 2. WARRIN PIPPIN.



Swinton del. W. H. Pease Lith. Albany.

1. RIDGE PIPPIN. 2. VANDEVEER.



W. Swinton del. R. H. Pease lith. Albany

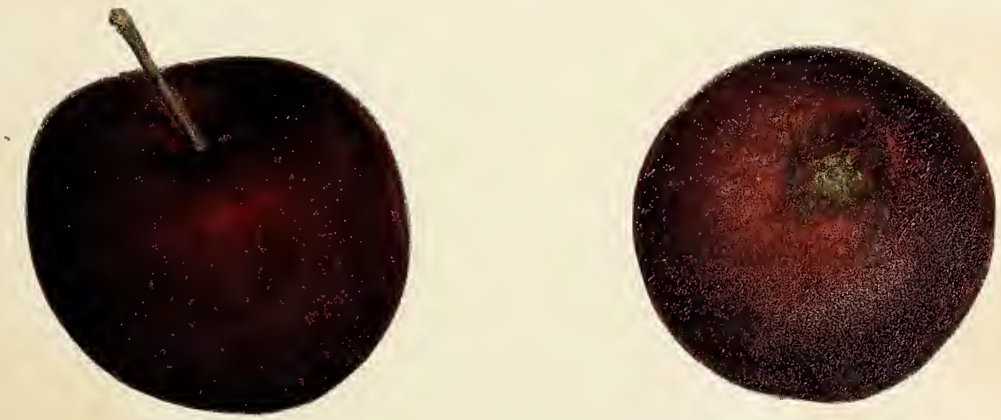
1. BLACK DETROIT. 2. CORNISH GILLIFLOWER.

1.

2.

Swinton del. R. H. Pease Lith. Albany.

1. MONMOTH PIPPIN. 2. RED RANGE.

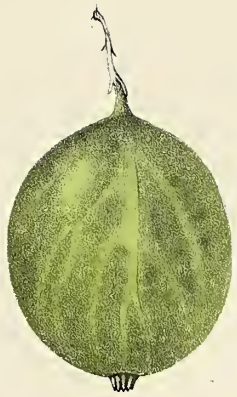


E. Emmons jr. Del.

Lith of R. H. Pease, Albany.

EARLY STRAWBERRY.

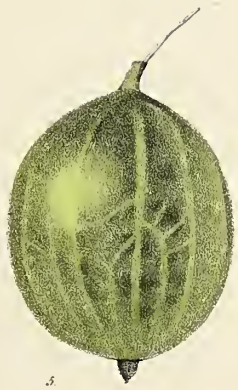
1



2

3

4



5

On Stone by F. J. Swinton

Lith. of R. H. Pease, Albany.

1. CHAMPION.
2. EDWARDS JOLLY TAR.
3. WOODWARDS WHITE SMITH.
4. WAMMANS GREEN OCEAN.
5. WHITE EAGLE.

1

2

3

4

5

On Stone by Swinton

Lith of R H Pease, Albany, N.Y.

3.

1. SULFER YELLOW.
2. CHAMPAGNE.
4. PITMASTONS GREEN.
5. GREEN WALNUT.

On Stone by Swinton

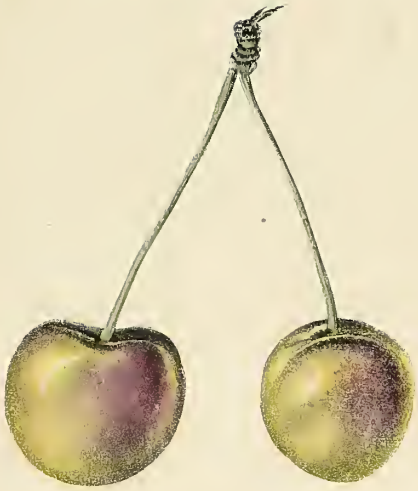
YELLOW ANTWERP RASPBERRY.

Lith. of R. H Pease, Albany

On Stone by F. J. Swinton

Lith of R. H. Pease, Albany.

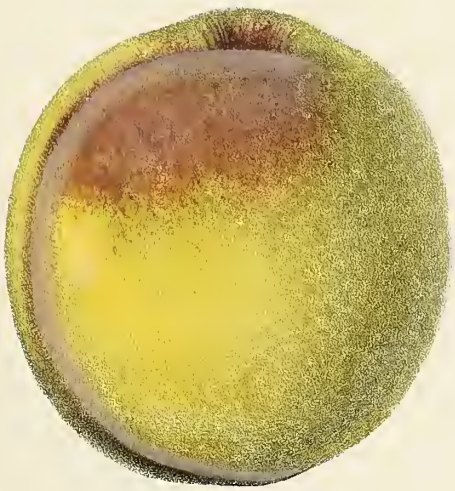
NEW RED ANTWERP RASPBERRY.



On Stone by Swinton

R H Pease Lith. Albany

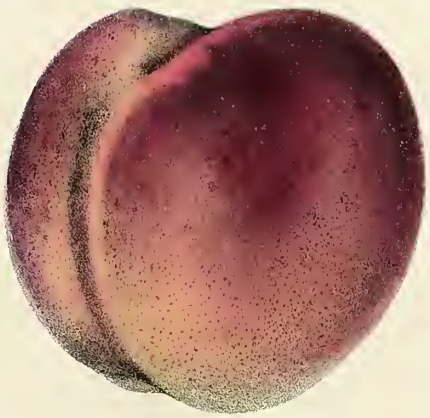
EARLY BARNARD.



On Stone by Swinton

R H Pease Lith Albany.

WEITBECKS YELLOW SEEDLING.



On Stone by Swinton.

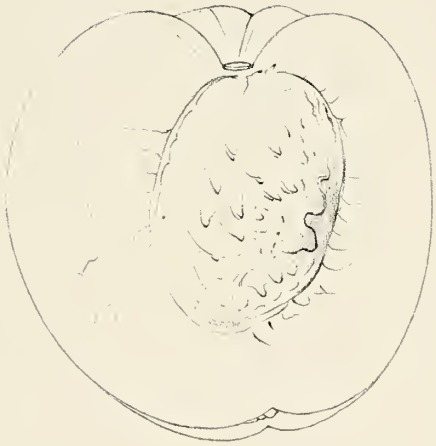
R.H Pease Lith. Albany

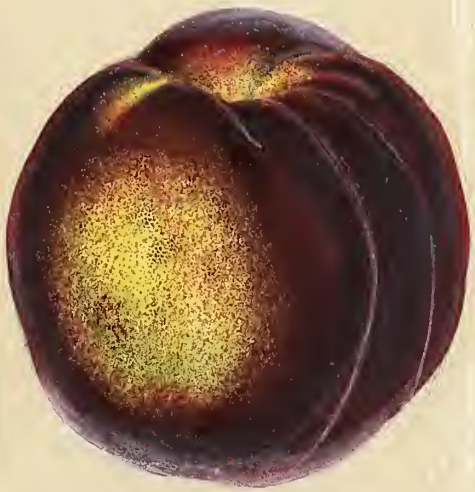
PRINCES RARERIPE.

On Stone by Swinton

R.H.Pease Lith. Albany

SWEET WATER.



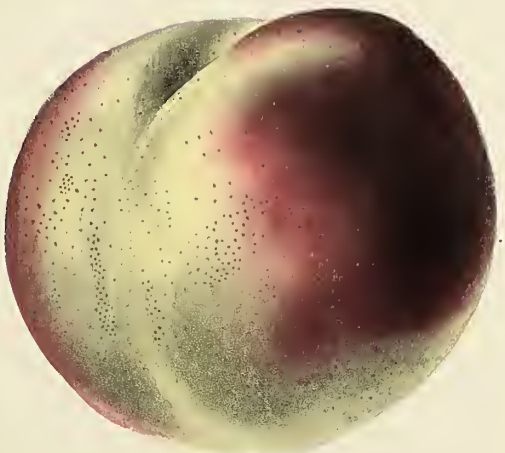


On Stone by Swinton

R. H. Pease Lith. Albany.

GOLDEN RARERIPE.

NOBLESSE.



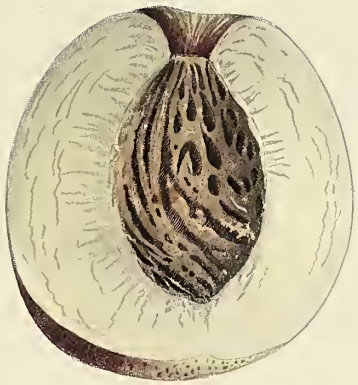
ROYAL KENSINGTON.

S. Emmons, Jr. Del

Aqua-tinted & Printed by J.J & H.H Pease

BELLE GUKA.

GOLDEN NECTARINE.



J Trotter del.

Aqua-tinted & Printed by T & R H

R H Pease Lith. Albany

1. HUBBARDSTON NONE SUCH. 2. PECKS PLEASANT.

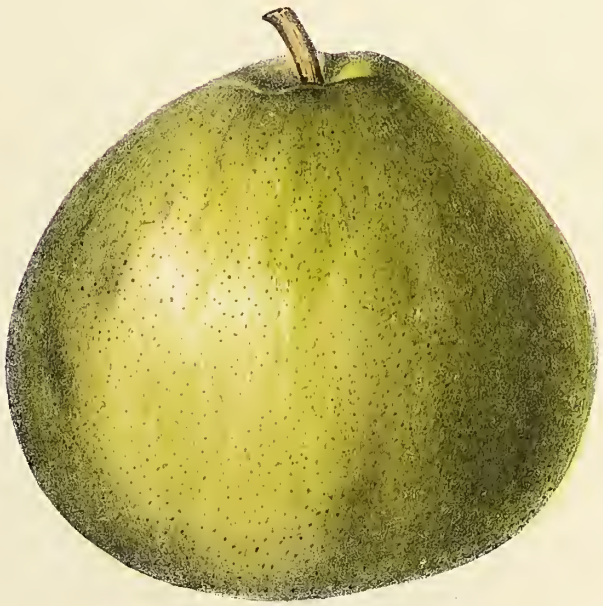
1.

2.

R.H Pease lith Albany

1. VIRGINIA SWEETING. 2. FALL HARVEY.

Pl. 75.



W Emmons J del. R H Pease Lith Albany

1. FALL STRAWBERRY. 2. GIL O GIL.

1.

2.

E. Emmons del. R. H. Pease Lith. Albany.

1. BELMONT OR GATE. 2. MELON.

CURRANTS.

1

2

R. Emmons Jr. del

R. H. Pease Lith. Albany

1. POMME GRIS. 2. COOPERS REDLING.

1.

2.

E Emmons Jr del R.H.Pease Lith. Albany

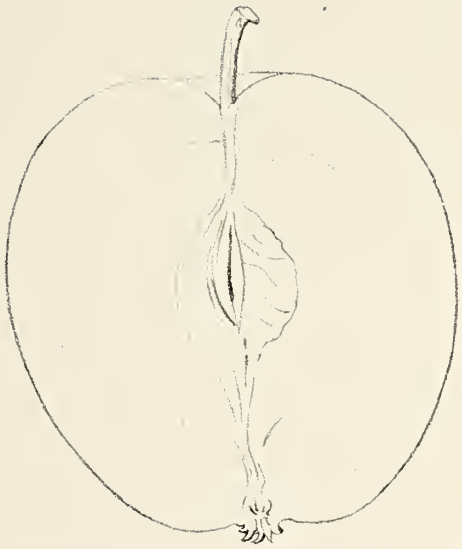
1. BELLE ET BONNE. 2. HOLLOW CORE.

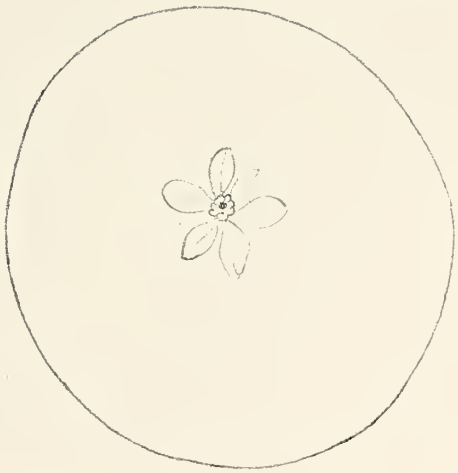
E. Emmons Jr. del.

R. H. Pease Lith. Albany

1. HALLS PIPPIN. 2. HOLLAND PIPPIN.

YELLOW VANDEVERE.





E. Emmons jr Del. Lith. of I. H[illegible]ease, Albany

LEMON PIPPIN.

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